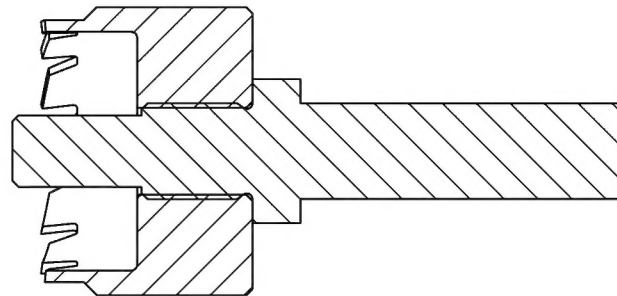
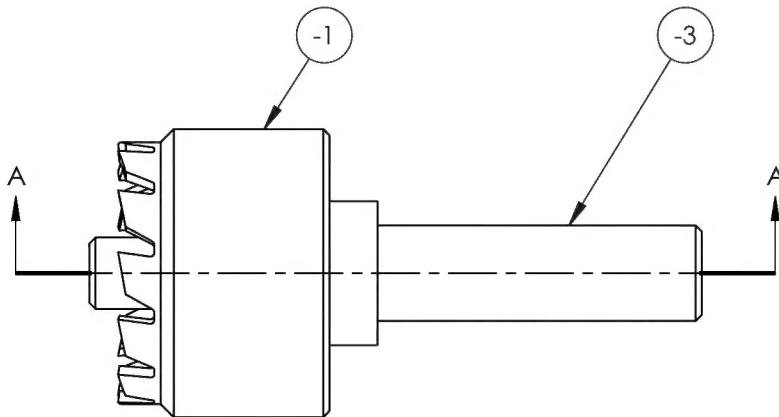


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		ADDED TOOL No. RBSC7050. DELETED RBSC412-010-182-103 SWAGING TOOL AND REPLACED IT WITH THE NEW STYLE RBSC7188. RECREATED BELL BEARING TOOLING FILE, WITH A NEW DESIGN OF CUTTER TOOLING. NEW TOOLING HAS VERITABLE DEPTH ON -1 CUTTER TO ALLOW FOR DEEPER BEARINGS AND A SHOULDER BOLT REPLACES SOCKET HEAD CAP SCREW. ALL PARTS ADJUSTED TO ALLOW CHANGES.	11/19/2009	WP	
2		ADDED TOOL No. RBSC7051. ALSO CHANGED RBSC7050-3 "C" DIMENSION FROM .320 TO .325 TO REDUCE SLOP.	11/25/2009	WP	
3	15-0045	UPDATED TO NEW DRAFTING STANDARDS. ADDED T/N RBSC7048. REDESIGNED TO USE TYPE I ARBORS ONLY. -1 UPDATED DIMENSION TABLE. CH'D ENGRAVE NOTE WAS ENGRAVE P/N IS ENGRAVE T/N. S/N, "MADE IN USA". -3 CH'D MAT'L WAS 4140 G&P IS 4140/4142 Q&T. UPDATED DIMENSION TABLE. -1 & -3 IMPROVED GD&T. DELETED -5 & -7. CH'D TOLERANCE ON NON-CRITICAL DIMENSIONS.	2/18/2015	DPD	JAG
4	16-0037	ADDED DIMENSIONS FOR T/N RBSC7245 USED WITH 430-310-456-101 BEARING.	2/17/2016	SM	JAG
5	17-0115	-1 CORRECTED GD&T DATUM REF. CH'D DIMS FOR RBSC7245 DIM ØA WAS 1.500 IS 1.250, DIM ØB WAS 1.2375 IS 1.114, DIM ØC WAS 1.1175 IS .994, CH'D NUMBER OF TEETH WAS 12 IS 10. ADDED FINISH SPEC QMSI-6.2.2, B.O. REV D. -3 CH'D MAT'L WAS 4140/4142 Q&T IS 4140/4140. ADDED HEAT TREAT RC 28-34.	5/8/2017	DPD	JAG



SECTION A-A

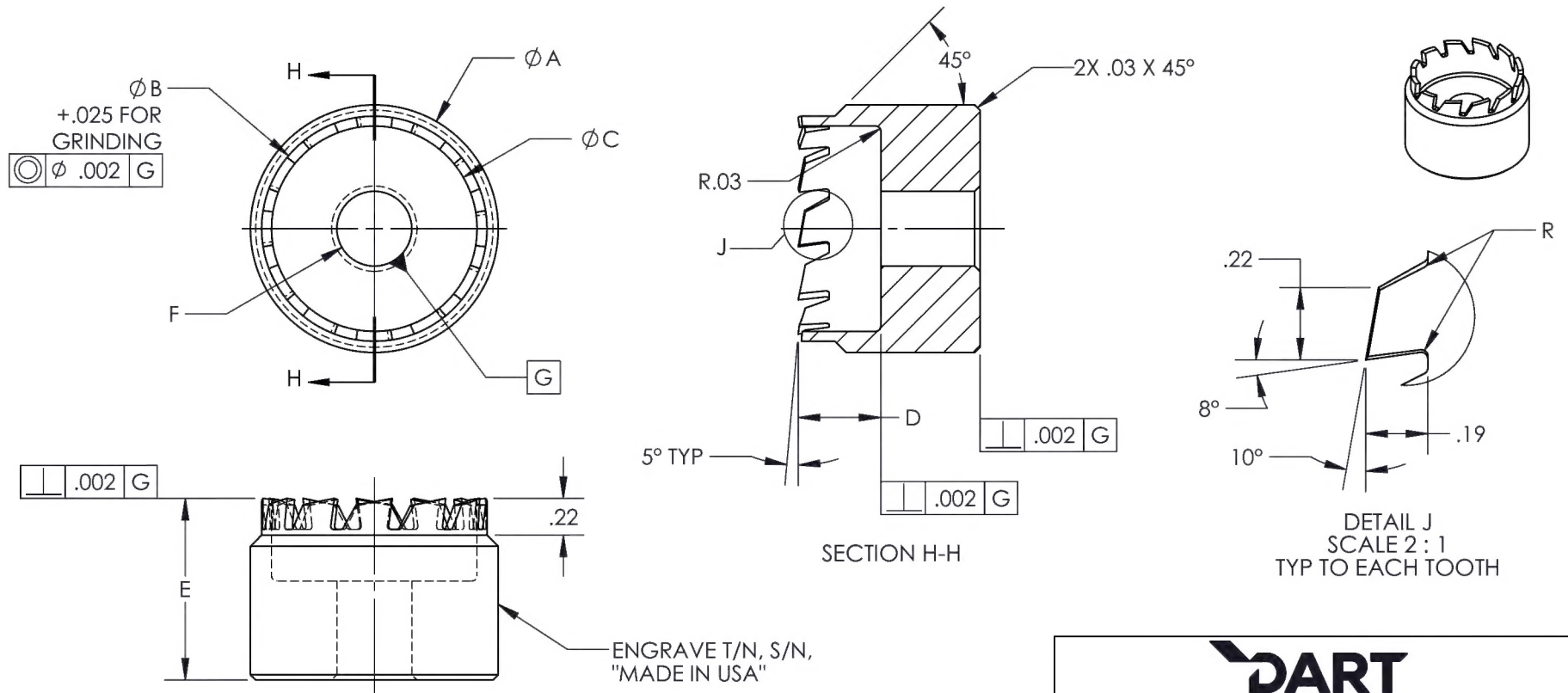
USAGE TABLE	
BEARING NUMBER	TOOL NUMBER
412-310-400-107	RBSC7050
412-010-427-101	RBSC7051
412-010-182-103	RBSC7188
406-312-100-101	RBSC7048
430-310-456-101	RBSC7245

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTERS; FOR BELL BEARINGS	
DWG NO. RBSC7### DP SERIES	REV 5
MAT'L	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH	.XX ± .01 ANGLES ± .5°
SPEC	.X ± .1 SURFACES = 125°
DRAWN BY: PERRITT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: RJC 05/08/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/10/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/10/2017	USED ON MODEL
APPROVED: JAG 05/10/2017	SEE TABLE
SCALE 1:1	DATE 11/19/2009
SHEET 1 OF 3	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	CUTTER	0-1 DRILL ROD	SEE TABLE	2
			-3	1	ARBOR	4140/4142	SEE TABLE	3

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		ADDED TOOL No. RBSC7050. RECREATED BELL BEARING TOOLING FILE, WITH A NEW DESIGN OF CUTTER TOOLING. NEW TOOLING HAS VERITABLE DEPTH ON -1 CUTTER TO ALLOW FOR DEEPER BEARINGS.	11/19/2009	WP	
2		ADDED TOOL No. RBSC7051.	11/25/2009	WP	
3	15-0045	-1 ADDED T/N RBSC7048. CH'D ENGRAVE NOTE WAS ENGRAVE P/N IS ENGRAVE T/N, S/N, "MADE IN USA". REDESIGNED TO USE TYPE I ARBORS ONLY. UPDATED DIMENSION TABLE. IMPROVED GD&T.	2/18/2015	DPD	JAG
4	16-0037	ADDED DIMENSIONS FOR T/N RBSC7245 USED WITH 430-310-456-101 BEARING.	2/17/2016	SM	JAG
5	17-0115	-1 CORRECTED GD&T DATUM REF. CH'D DIMS FOR RBSC7245 DIM ØA WAS 1.500 IS 1.250, DIM ØB WAS 1.2375 IS 1.114, DIM ØC WAS 1.1175 IS .994. CH'D NUMBER OF TEETH WAS 12 IS 10. ADDED FINISH SPEC QMSI-6.2.2, B.O. REV D.	5/8/2017	DPD	JAG



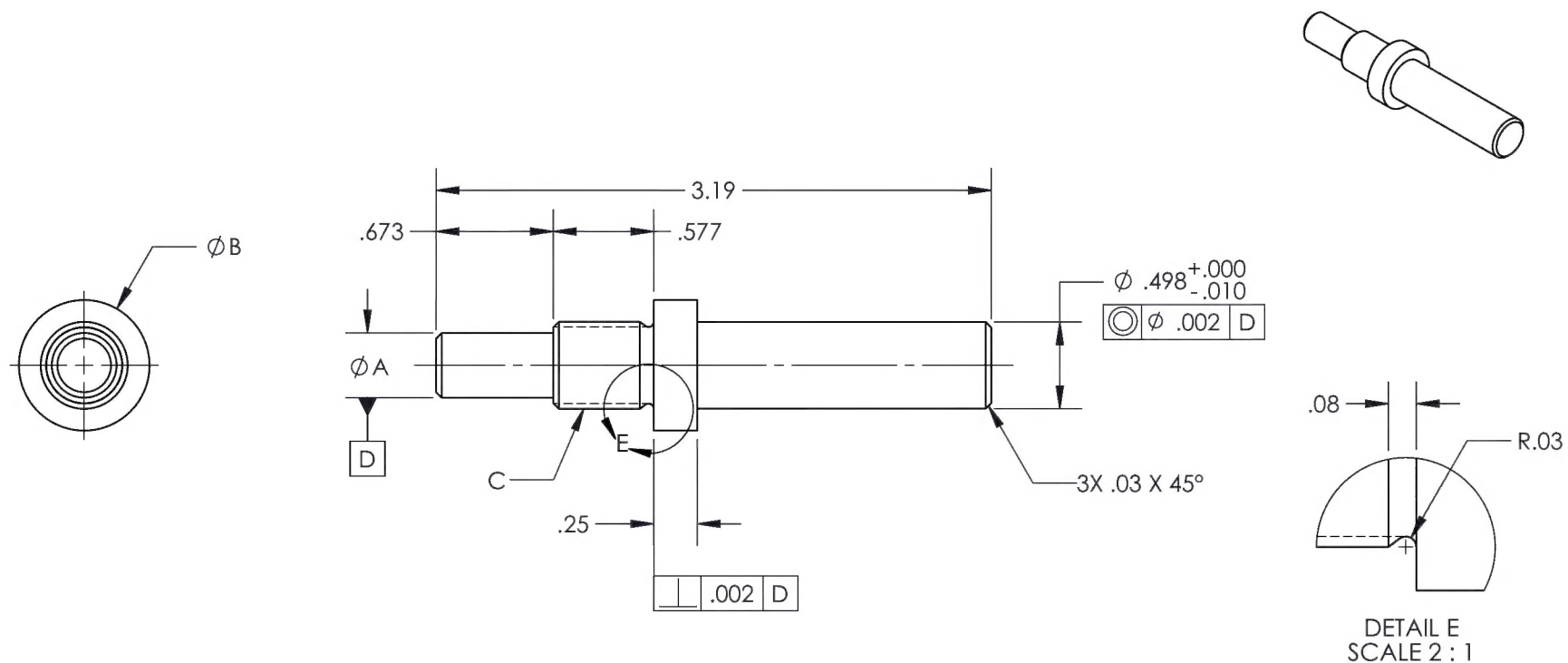
TOOL NUMBER	ØA +.000 -.010	ØB +.000 -.002	ØC	D	E	F	NUMBER OF TEETH
RBSC7050	1.500	1.364	1.244	.500	1.100	1/2-20	12
RBSC7051						3/4-16	12
RBSC7188	1.250	1.115	.995			3/8-24	10
RBSC7048						1/2-20	10
RBSC7245						1/2-20	10

①
CUTTER

DART AEROSPACE			
TITLE DRILL PRESS BEARING CUTTERS; FOR BELL BEARINGS			
DWG NO. SEE TABLE-1			REV 5
MAT'L 0-1 DRILL ROD		UNLESS OTHERWISE SPECIFIED	
HEAT TREAT RC 55-60		DIMENSIONS ARE IN INCHES	
FINISH BLACK OXIDE		.XXX ± .005 FRACTIONS ± 1/8	
SPEC QMSI-6.2.2, B.O. REV D		.XX ± .01 ANGLES ± 5°	
DRAWN BY: PERRITT		.X ± .1 SURFACES = 125°	
CHECKED: RJC 05/08/2017		1. BREAK ALL SHARP EDGES	
OPPS APPR: AA 05/10/2017		.015 x 45° OR .015R	
QA APPR: JL 05/10/2017		2. DIMENSIONAL LIMITS APPLY	
APPROVED: JAG 05/10/2017		AFTER PLATING	
SCALE 1:1		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE 11/19/2009		USED ON MODEL	
		SEE TABLE	
		SHEET 2 OF 3	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		ADDED TOOL No. RBSC7050.	11/19/2009	WP	
2		ADDED TOOL No. RBSC7051. ALSO CHANGED RBSC7050-3 "C" DIMENSION FROM .320 TO .325 TO REDUCE SLOP.	11/25/2009	WP	
3	15-0045	-3 CH'D MAT'L WAS 4140 G&P IS 4140/4142 Q&T. ADDED T/N RBSC7048. REDESIGNED TO USE TYPE I ARBOR ONLY. UPDATED DIMENSION TABLE. IMPROVED GD&T.	2/18/2015	DPD	JAG
4	16-0037	ADDED DIMENSIONS FOR T/N RBSC7245 USED WITH 430-310-456-101 BEARING.	2/17/2016	SM	JAG
5	17-0115	-3 CH'D MAT'L WAS 4140/4142 Q&T IS 4140/4140. ADDED HEAT TREAT RC 28-34.	5/8/2017	DPD	JAG



TOOL NUMBER	ØA +.000 -.002	ØB	C
RBSC7050	.372	.750	1/2-20
RBSC7051	.622	1.000	3/4-16
RBSC7188	.310	.625	3/8-24
RBSC7048	.373	.750	1/2-20
RBSC7245	.372	.750	1/2-20

(-3)
ARBOR

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTERS; FOR BELL BEARINGS	
DWG NO. SEE TABLE-3	REV 5
MAT'L 4140/4142 HEAT TREAT RC 28-34 FINISH BLACK OXIDE SPEC QMSI-6.2.2, B.O. REV D	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125 ✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: PERRITT CHECKED: RJC 05/08/2017 OPPTS APPR: AA 05/10/2017 QA APPR: JL 05/10/2017 APPROVED: JAG 05/10/2017	
USED ON MODEL SEE TABLE	
SCALE 1:1	DATE 11/19/2009
SHEET 3 OF 3	